

Protective properties of fractured-porous aeration zone in the case of groundwater pollution by liquid hydrocarbons

Belousova I., Kosterin A.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The problem of migration of a hydrocarbon liquid through aeration zone to groundwater table is formulated and solved analytically. The aeration zone is represented by fractured-porous rocks, and the pollution source is a shallow pool that has formed due to a spill. Two schemes of liquid infiltration from fractures into rock blocks - piston-like and kinetic - are considered. The trajectory of pollution front in fractures and its distribution in the rock blocks are found. © 2004 MAIK "Nauka/Interperiodica".

<http://dx.doi.org/10.1023/B:WARE.0000021583.48621.ca>
